NOTES

—ON—

PROF. ORMOND'S

METAPHYSICS LECTURES

BY J. P. KING, '92

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METAPHYSICS.

There has always been in philosophy itself a tendency to turn the cold shoulder to metaphysics. This is seen in the three types of philosophy into one or other of which the philosophic convictions of men, in so far as they have failed to reach positive conclusions, have fallen.

1. The Positive Type. This makes philosophy a "scientia scientarum," and does not allow us to inquire about God, man's destiny, &c. 2. The Critical Philosophy of Kant, while broader and richer, still reaches the same negative conclusion toward metaphysics. 3. The Negative Philosophy of Herbert Spencer, while realizing the existence of extra-phenomenal realities, relegates all these to the sphere of the unknowable.

We can waive the logical question of the vindication of metaphysics and on grounds of *theoretical and practical necessity* endeavor to answer the questions of metaphysics.

The Scope of Metaphysics.

Its Relation to Philosophy in General.—Philosophy has been defined as "that group of sciences which deals with mental knowledge, viz.: metaphysics, psychology, logic and ethics;" as "principient knowledge" (Stuckenburg.) It is the rational explanation of the phenomena of the world in the light of first principles; the science which attempts to get at the ultimate truth of things.

Being, from the standpoint of philosophy, presents a double aspect: (1) phenomenal, seen, relative, finite; (2) noumenal, unseen, absolute, infinite. *Philosophy* has two spheres corresponding to these two aspects of being: 1. The phenomenal sphere. Here it is (*a*) "Scientia scientarum." (*b*) A collective term, which seeks in the different department of science for their basis. 2. The noumenal sphere. Here it is extra-scientific and is identical with metaphysics, which thus occupies only part of the field of general philosophy.

The Logic of metaphysics—metaphysics in its relation to the whole of ultimate reality—is known as Ontology. Applying this logic, we have: I. *The metaphysic of Duty*—Ethics. II. *The*

metaphysic of Knowledge—NOETICS. III. *The metaphysic of Being*—METAPHYSICS PROPER, embracing, (1) *Rational Psychology*, (2) *Rational Cosmology*, (3) *Rational Theology*.

Two questions arise: A. Are the faculties of man capable of reaching these things?—the problem of *knowledge*. This is the question of modern philosophy, and *Agnosticism* answers *No*.

B. What of the results themselves?—the problem of *being*. This was the question of ancient philosophy, and the negative conclusion was *Atheism*.

HISTORICAL AND CRITICAL INQUIRY.

Descartes was the first to propound the problem of knowledge as the great problem of philosophy. He was completely dissatisfied with preceding philosophy; its aim, content, and method were false. He saw the necessity of *criteria of truth*. He sought:

(1.) *A new starting point* as a basis for a new theory of knowledge. To discover this, he approaches everything with a spirit of *doubt*, and finds that one thing at least is certain, viz.: the fact that he doubts. To doubt is to think; and thinking involves the existence of a thinker. He puts this into the dictum: *cogito ergo sum*. As *criteria of truth* he lays down *clearness* and *distinctness*,

(2). *A new method—deduction—ratiocination*. Certain clear conceptions are given, and from these by deduction the system of knowledge is constructed; *e. g.*, He deduces the properties of material things from *extension*. Cartesianism almost ignores the function of experience.

Locke was the propounder of the problem of knowledge in English philosophy. Locke's *method*, however, differs from Descartes' in being *psychogenetic* or *empirical*. He asserts that there are no original *a priori* ideas in the human mind. Everything is generated by experience.

A. THE ORIGIN OF KNOWLEDGE—the genesis of the idea. (*a*) *Simple* ideas are given by sensation and reflection. Out of these simple ideas, (*b*) *Complex* ideas are derived: (1) Ideas of *modes*—properties and qualities of things. (2) Ideas of *substance* (spiritual and material)—objective things independent of our consciousness. (3) Ideas of *relations*—connecting things together into a system, *e. g.*, relations of cause and effect, identity, moral good, &c.

Locke's solution here is very imperfect.

B. NATURE AND LIMITS OF KNOWLEDGE. (*a*) The *Basis* of knowledge is the perception of the relations among *ideas* (*not*

among things.) Here is his first breach with the realistic theory. (*b*) The *Kinds* of knowledge are: (1) *sensitive* knowledge—knowledge of material things; (2) *reflective* knowledge—direct apprehension of relations; (3) *demonstrative* knowledge—that indirect knowledge we reach through relations, *e. g.*, by the syllogism. (*c*) The *Limits* of knowledge. Man has an intuitive knowledge of himself. Here is another rift in Locke's theory. He transcends his definition, introducing extra-ideal realities.

Locke failed (1) to show how the complex ideas are built out of the simple; (2) to give a satisfactory theory of knowledge.

Hume was a disciple of Locke, yet tries to eliminate certain inconsistencies of Locke's system, eliminating (1) *the ideas of reflection*; sense impressions, he asserts, are the sole data out of which experience and knowledge develop; (2) *causality*; (3) *substance*; (4) *identity*, which he identifies with resemblance. Hume says if it is the business of philosophy to deduce these and if it is unable to do so, they must be thrown out.

A. Hume's Genetic Theory. The elements are simply a heterogeneous mass of sense atoms: sounds, organic feelings, &c., with no principle of relation among them. Out of these elements we get an organized experience by *association—customary conjunction*, the sensitive consciousness forming the habit of expectation.

B. Hume's Theory of Knowledge is necessarily (*a*) *subjective* and (*b*) *sensational*. The relations must be merely of juxtaposition. The relation of *causality* grew up from invariable conjunction. The relation of *substance* is a pure illusion, as is that of *identity*. Knowledge is simply a thing of consciousness; and consciousness is a thing of sensation. Knowledge *includes* the phenomena of sense. It *excludes* (1) the object as a persistent reality independent of our consciousness; (2) the soul or mind. Logically there is no ground for inference as to God's existence.

Hume, while a philosophical sceptic, was a Christian believer.

His *scepticism* embraced all super-sensual reality. Hume, however, was landed in chaos. He fell into scepticism with reference to his own theory, and pronounced it of no value.

Kant's Critical Solution.

The rationalistic movement had ended in Wolff in absolute dogmatism, divorcing philosophy from experience and emptying it of its content. The empirical movement had swamped itself in scepticism. Kant's problem was (1) to check the extreme pretensions of dogmatism; (2) to cure the evils of scepticism.

A. The Data of Knowledge.

Sensations (the "matter") are necessary as furnishing the content; rational elements (the "form") enable us to construct these material elements into the forms of an organized experience. The object perceived is a plexus of sensations and space and time relations. Above the sphere of perception are the principles which the mind uses in organizing its experience; the categories of cause, identity, &c.

B. The Nature and Limits of Knowledge.

1. *In the sphere of perception.* The object perceived, "the phenomenon," is not the reality. The "thing in itself" we construct out of certain elements apart from perception. The "matter" is supplied from without; it is the *a posteriori* element in experience. The "form" is supplied by the mind, and is the constructive, *a priori* element.

2. *In the sphere of cognition and ratiocination.* "Phenomena" are simply the objects as conceived by the human understanding under the ideas of causality, substance, &c. "Noumena" embrace (1) the idea of the human soul or mind as the identical subject of our experience; (2) the idea of the world; (3) the idea of God as ultimate cause of all things. The sphere of absolute reality is unknowable. In the "Critique of Practical Reason" Kant investigates the grounds of morality and discovers certain data which lead to more positive conclusions. He starts with "the categorical imperative." *Ought* is absolute: what a man ought to do he must be able to do . ·. he is *free*. The complete end is an ideal state in which perfection of character is combined with perfection of condition. That end being ideal, is infinite . ·. not realizable in a finite time, . ·. the *soul's immortality* is a necessary condition. Then in order that there may be a moral universe in which ethical ends will be realizable, there must be a First Cause; and only an intelligent and moral Cause is adequate to the result, . ·. *God's existence* is necessary. Kant's solution is only negative—agnostic—in so far as it rests on theoretical grounds. His positive conclusions, however, are so hampered by the negative that they lose much of their force.

The Positive Solution.

I. *The metaphysic of the* English Associationists. This is simply a continuation of Hume's empirical movement; sensational in data; associational in its conception of how the ideas grow up.

James Mill (1773–1836) was intentionally a follower of Hartley but as a matter of fact was a Humian out and out. The germ of all organization is a repetition of conjunction among the elements of experience.

John Stuart Mill develops especially on the psychological side. He sees the importance of the question how we get at knowledge of the objective from the sensational standpoint, but his explanation is not satisfactory In his psychology he fails to make the transition from the subjective to the objective. In his logic he assumes that transition to have been made, and takes objective ground from the start. The conclusion of the association school with regard to these ultimate questions is *negative.*

II. **Positivism Proper,** of which **Comte** is the founder. (*a*) *Comte's theory of Knowledge* is that phenomena and their relations (*i. e.*, their co-existences and sequences in space and time) constitute the sole data of science, dynamic conceptions being excluded. (*b*) *Comte's law of the three stages* in the development of the race is: (1) the *theological stage*—all events referred to personal agencies; (2) the *metaphysical stage*—abstract principles substituted for personal agency; (3) the *scientific stage*—the mind gives up everything except the phenomenal aspect of being and seeks to determine by generalization the laws of phenomena. In this stage only is true, positive knowledge reached.

Defects of Comteism. (1) It excludes certain concepts that are necessary to science, *e. g.*, force, energy, cause. (2) It ignores psychology altogether.

English Positivism. Geo. H. Lewes (1) includes psychology among the sciences and recognizes the validity of dynamic conceptions; (2) brings the theory into line with present scientific ideas by introducing evolution and heredity.

A. *Lewes' Psycho-genetic Theory.* His data are sensibility and its laws. Everything else may be deduced from these by a process of evolution and heredity.

B. *Lewes' Theory of Knowledge* is founded on his theory of psycho-genesis. The faculties of knowledge are all sensitive.

The categories of conceivable knowledge are: (1) *sensible* knowledge—what we actually observe; (2) *super-sensible* knowledge—those things (*i. e.*, men on Mars) not observable yet analogous to sensible things; (3) *supra-sensible* knowledge—the sphere of supposed things which transcend sensible analogies, (*e. g.*, God,

mind.) (1) and (2) constitute empirics; (3) constitutes met-empirics and is unknowable.

The source of the negation of Positivism is in its sensational data. Evolution is not a process of negation. Give it the right materials and it will produce the right results.

The Realistic Solution.

Herbert Spencer's philosophy is the great embodiment of evolution philosophy. Its *historical antecedents* are: (1) from the Association school it derived its psycho-genetic view which founds on the data of sense; (2) from Kant it gets its metaphysical basis, and here it differs from Positivism. A. Its *Data* are synthetic; the supra-sensible is asserted as the explanation of the sensible. B. Its *Process* is evolution. C. Its *Result:* (*a*) on the subjective side, the evolution of mind, consciousness, mental faculties, and principles of perception and reason; (*b*) on the objective side, his realistic theory of perception and his agnostic metaphysical theory. Spencer's philosophy draws a fundamental distinction between the relative, phenomenal, sensible and the absolute, noumenal, supra-sensible. Only the former is knowable, and to this his philosophy is confined.

A. *As a Psycho-genetic Theory.* Psychological evolution is the development of an inner center of conscious response to environment, the datum being a sensitive organism. Specific forms (as memory) are next developed, then principles (as causality) are unfolded, the result being mind in its developed form.

B. *Spencer's Theory of Knowledge* (*a*) psychologically is (1) phenomenal and (2) realistic. He asserts objective reality though his theory of perception would logically cut him off from it. (*b*) Metaphysically, it is agnostic. *Positively*, he affirms that it must be the First Cause of all being, an energy, absolute, one; but (*negatively*) denies that we can assert it to be either (1) material or spiritual; (2) intelligent or non-intelligent; (3) conscious or unconscious; (4) personal or impersonal.

Spencer's Agnosticism embraces all questions which refer (1) to the ultimate nature and destiny of the soul; (2) to the nature of the First Cause; (3) to God's existence and His relation to man.

Kant and Spencer agree (1) in asserting the necessary existence of some absolute supra-sensible reality; (2) in their negative position that this being is unknowable.

They *differ* in that (1) Kant denies that we can determine the nature of the absolute; Spencer asserts it as the cause of all things;

(2) while Kant asserts God's existence, man's immortality, &c., on ethical grounds, Spencer denies the possibility of such conclusions.

Of the three types of negation, the *Positive type* founds its theory of knowledge on a purely phenomenal basis, and does not allow us to assert reality beyond the sphere of observation. The *Critical type* rests on the distinction between the phenomenal and the noumenal. Only the former is knowable, but we must assert the existence of an unknowable ground—explanation of things. On the moral side, however, Kant postulates freedom, immorality and God's existence. The *Agnostic type* of Spencer recognizes the existence of both phenomenal and noumenal, yet says we can't determine the nature of the latter, and denies the special validity of ethical data.

A common feature of all these types is *sensationalism*. Anything untranslatable into an object of sense is asserted to be unknowable. Spiritual existence is thus rendered *a priori* unknowable.

CONSTRUCTIVE.

In every act of knowledge there are two terms: the subject that knows, and the object that is known. If our investigation starts with the object, we ultimately strike some insuperable barrier. We must therefore approach the problem of knowledge from its subjective side. The *method* must be (1) to discover the first principles of knowledge; (2) to find what rational knowledge the subject may attain of itself; (3) cross to the problem of objective knowledge; (4) investigate objective existence itself.

The First Principles of Knowledge.

We must distinguish between *common* knowledge which is merely knowledge of things, its first principle being *consciousness*, and *rational* knowledge which is knowledge of things in their relation to other things, its first and only principle being *self-consciousness*.

Nature of Self-Consciousness.

1. Self-consciousness is not the mere consciousness of self irrespective of what is thought and independent of its conscious environment. 2. Nor is it the consciousness of a mere bundle of states independent of the ego (as Hume and Mill asserted). This is only one side. Self-consciousness is that by which we know ourselves on the one hand as a flowing stream; on the other, as an ego. Mutations in personality are coming to be regarded as possible, as is also the occupation of the personality of one individual

by that of another. Demoniacal possession is directly in line with this. The existence of self. (1) *Do I, and* (2) *how do I know that I exist?* We can theoretically doubt a practical certainty. (*a*) Descartes said "cogito ergo sum." (*b*) The intuitional view is that thought knows itself directly. (*c*) The immediate judgment view is that the existence of self is an immediate judgment of consciousness. Combine these, and the "threefold cord is not easily broken." The validity of our knowledge of the object—of all knowledge—depends on the validity of our self-knowledge. Were I to say there is no perceiver, my assertion contradicts itself. I have to constitute myself a perceiver back of that perception and so on *ad infinitum*.

Our Knowledge of the Nature of Self.

Three stages. 1. The *feeling of self*—that indefinite consciousness of self which we share with animals. 2. The *representation of self*—the first stage of definite self knowledge—you see self from a multitude of different standpoints. 3. The *idea* or *intuition of self*—our complete conception of self viewed as a whole—the highest stage. The *data* in reaching the idea of self are the whole content of our consciousness, embracing the results of the first two stages; the *process* is reflective analysis. The idea of self in a sense constitutes a formula which sums up the characteristics of self. Self, analyzed, is found to embrace two inseparable elements: I. The subject ego ("I"); and II. The objective or empirical ego ("me").

I. The Subject Ego. *Negatively*, the subject ego (1) is not identical with the states of consciousness, for they do not explain its unity; (2) is not a substratum of mental states, for when we take away the states the substratum is gone too. *Positively*, it is (1) that in us which enables us to gather up the present manifold states of consciousness into the unity of self-reference; (2) that which connects the whole present, by memory and anticipation, with the past and the future, thus giving a continuity to self. The ego is a real and ultimate element in mental life—in self-consciousness; irreducible—ever persistent.

II. The Objective or Empirical Self is the aggregate of conscious states which make up the mass of our conscious being. This objective self is variable and plural.

The concrete or real self embraces these two elements: *subjective*, accounting for the unity; and *objective*, accounting for the versatility of mental life. One consciousness does not mix with, though it may be temporarily substituted for, another; as in demoniacal possession.

Characteristics of the Concrete Self. 1. It is *substantial.* Anything is substantial which is (1) real, (2) potent, (3) independent—anything capable of doing work; and the ego fulfills these conditions. 2. It is *unitary being.* Our idea of unity is derived from our consciousness which is the real unity of self. Absolute continuity is no more essential to unity here than in matter. 3. It is *energizing being.* Hume and Mill say that we are conscious (1) of a resolve to move the arm (*e. g.*), (2) of the movement of the arm, but not conscious of any nexus. Now the nexus though hidden in mystery is really there. Volition is a form of mental energizing.

Special Attributes *of Self.* All mental phenomena may be statically classified under (1) intellect, (2) feeling, (3) will: dynamically, under the (1) knowing, (2) emotive, (3) volitional functions. The *theoretical* aspect of intellect gives us truth, fact, actuality; the moral aspect gives us right and duty; *theoretical* feeling gives pleasure, beauty, &c.; *moral* feeling gives moral approbation or disapprobation; *theoretical* will gives us deliberation, choice, resolution; *moral* will gives assent and responsibility. This plurality of mind in its manifestations does not at all impair the substantial unity of mind itself.

The Personality *of Self* embraces two elements: content, and personal identity. The *content of personality* is simply the whole consciousness, embracing self as a substantial reality possessing intelligence, feeling and will with their manifestations. There may be degrees in personality, if by this we mean degrees in the content of consciousness. Self-consciousness—intelligent agency—is the criterion of personality. *Personal Identity* involves three terms: memory, lapse of time, present consciousness. Memory, even though gaps (as in insanity) intervene, connects present consciousness with the past. It is probable, though not certain, that there can be no *absolute* gap. *Persistence* of personality belongs to the ego; *mutations,* to the empirical self. Personality *manifests* itself through either intellectual or volitional channels: the former giving sensuous manifestations; the latter creating an environment of laws and institutions of civilization.

Evolution *of Personality.* We have to deal with psychical as well as physiological evolution. The causes which produce the evolution are (A) *External*—environment: (1) original—(cosmical and biological)—the physical conditions under which man grows up; (2) created—(institutions and culture); (B) *Internal*: (1)

combinations of original elements in the organism; (2) use and disuse, resulting in (a) development of characteristics and (b) acquisition of new characteristics. Weismann's theory is that acquired characteristics are not transmissable. If this is true, original combinations are more important than use and disuse in producing the psychical result. Created environment is cumulative and gradually transcends original environment in importance.

The Materialistic Theory of Self is a form of *monism:* that there is only one ultimate substance—*matter*, or some ultimate form of force or energy. Mind is a mere phenomenon or aspect of brain, as motion is of matter. 1. *The Double Aspect Theory;* that consciousness is one aspect of motion (the other aspect being molecular motion). 2. *The Nerve-Strain Theory* of Herbert Spencer, that consciousness is simply nerve strain. Both these theories simply present the problem in another form. 3. *The Identity Theory,* which is tenable: the identification of nerve function with an elementary form of consciousness called *sentience.*

Difficulties *confronting a materialistic theory.* Assuming that nerve function is motion, the impossibility of showing that motion involves consciousness. If we drop the assumption that nerve function is motion, we have no other physical analogy. From the psychological standpoint we thus reach an ultimate dualism. The facts on which materialism founds are: (1) the close dependence of consciousness on the underlying physiological structures; (2) the performance by the organism of automatic and reflex acts of adaptation, coördination and selection. *However,* the trend of the facts is away from materialism. Modern thought recognizes that mind cannot be construed in terms of matter: that it is itself a reality. Only when connected with an atheistic postulate is the principle of development objectionable.

Freedom. A century ago the controversy was between the libertarians and the necessitarians, and while each was able to refute the arguments of its adversary, neither was able to establish its own position. Later the struggle has been between indeterminism and determinism. It is still the issue between motiveless freedom and motived necessity. The one say that choice is not determined by motives, for that would destroy freedom: the other, as Herbert Spencer, that all choice is determined by motives, the problem being one of psychical mechanics—push and pull—and no real freedom. Psychological Aspect *of the Problem.* 1. There is no such thing as a motiveless choice. 2. Normal choice (*i. e.*, accom-

panied by consciousness of freedom) is not causally determined. Distinguishing between internal and external motives, (those operating within us, and those from without forcing us to act against our will), freedom has to do with the operation of *internal* motives only. Distinguishing between *condition* (that which as a part of the stream determines the stream) and *cause* (something external), while choice is conditioned by motives it is not causally determined by motives. Motive: choice:: part: whole. Motives combining constitute the whole choice which determines itself. Volition from this point of view may be regarded as self-realization or *self-determination* which, though spontaneous, is conditioned (1) by the character of the individual—his preceding choices; (2) by the present environment. *The self that chooses* is not determined by that which is not self: it determines itself. The whole self chooses only when the present self and the past self combine. The past self is the absolute, customary self, and contains a man's character. The *feeling of freedom* is the feeling of unconstrained choice or action. Baldwin has analyzed this into (1) the feeling of alternatives; (2) the feeling of agency or power.

Freedom and **Responsibility.** After choice is made we have a feeling of irrevocableness called *responsibility*—that in choosing the act we have chosen its consequences. Freedom and responsibility vary together. Suppose the characteristic self is absent, as in insanity or somnambulism, the man is not responsible for his acts. Distinguish between a feeling of responsibility, and a feeling of guilt, which latter depends on the nature of (1) the act itself; (2) of the act so far as *we* are related to it.

Metaphysical Aspect *of the question.* Here we can assume the results reached in our psychological analysis and so exclude the hypotheses (1) that choice is arbitrary—motiveless; (2) that it is causally determined. Predeterminism is the metaphysical question. Given spontaneous self-determination as the law of present choice, has not that choice been determined by preceding conditions? and given these, can the result be inevitably predetermined? Distinguish here between prediction founded 1. on *causality;* 2. on *probability:* also between (a) *averages;* and (b) *individual cases.* Only (1) and (b) are under consideration here. The issue is *ethical.* On the categories of right and wrong we find a scale of ethical values: (1) *Negative* values: things always wrong. (2) *Positive* values: the subordination of lower to higher motives. Conscience rejects (1) and attaches itself to the higher of (2). *e.g.*, Joseph

in Potiphar's house, resists strong temptation by fixing his attention on fidelity to his master and duty to his God. Divine help was given by enabling him to do this. There are two elements in choice in view of temptation: (1) the *motives*; (2) the *will* which fixes attention on certain motives. Individual action cannot be predicted; for while we can calculate the relative strength of motives, attention comes in to make some motives stronger than usual, and this renders the whole incalculable. We must separate FREEDOM (which is vertical) from ABILITY, which is horizontal. A man may act freely along a plane and yet be unable to rise above that plane —a limitation not of mental freedom but of mental power. *e. g.*, A child of thieving ancestry. Hence the need of help from above —human or divine. On this assumption Christianity is founded. Psychologically, *responsibility* is a function of freedom; metaphysically, of freedom and opportunity. A man is responsible for not knowing if he has had the opportunity of knowing; otherwise he is not responsible. Ability affects responsibility when it can be translated into a limitation of either freedom or opportunity.

Man's Destiny. Neither Science nor Philosophy can speak absolutely on this question. 1. From psychological analysis we get the fact of *the real personality of self*. This alone would create a strong presumption in favor of the ability of self to exist independently. 2. Physiological analysis brings out the close relation between self and its physical organ; and the presumption here might be that the dissolution of the physical basis would mean the dissolution of conscious existence. (1) and (2) just about balance. Science cannot deny the *possibility* of post-existence, and is obliged to leave the whole question in a state of well-balanced uncertainty. Proof or disproof on purely *logical* grounds is impossible, because immortality cannot (like God's existence as first cause) be connected with any principle of necessity. *Teleological* considerations, however, have a positive value. Teleology has a place in science, (*e. g.*, in biology), but philosophy is its peculiar sphere, rising only to its full dignity when teleology is recognized to the fullest.

THE BEARING OF TELEOLOGY ON THE QUESTION OF IMMORTALITY. 1. *Ethical* considerations. Man as a moral being has a destiny to realize—an ideal of perfection—and it is a necessary postulate that man should exist after the death of the body that he may have a sphere of life and action commensurate with the demands of his ethical nature; for these demands overleap the barriers of mortal existence and claim the infinite as their sphere. 2. *Emo-*

tional considerations. Man is a being of hopes, interests and aspirations; and if you try to confine these to the present life you crush them out. The only unfading, perennial source of these things is that hold which man's nature takes on the future and the unseen. All these considerations have a certain positive teleological value. To them the natures of the highest and noblest of mankind have always responded with the strong conviction that man is destined to an immortal existence. Our belief is strengthened by premonitions—"intimations of immortality"—which we at times have. Then, too, our belief rests to a certain extent on authority. In literature, science, art, we trust the revelations of men of genius—they reveal to us truths which we could never have discovered ourselves. The great reformers—the great saviors—the great Saviour of the world, all tell us that the soul is immortal. When Christ says that he came to bring life and immortality to light; when he makes the future world so real that the present seems to vanish into a shadow, *there* we have an evidence which is overwhelming, and a kind of evidence which has value not only in this but in every sphere. We thus have a philosophically rational ground for a positive practical belief in man's immortality.

PHILOSOPHY OF NATURE.

The sources of our knowledge of nature are reducible to three: perception, judgment, reason. I. **Perception.** A. Process of perception. The original elements are those presentations of objective reality which are implicit in our first sensations. The acquired elements grow up from these primary elements and our complete percept is a combination of both. The stages are (1) *differentiation;* attention is directed to various parts of the field and distinctions arise; (2) *localization* of objects in space; (3) *synthesis;* the grouping of the elements around a common reality center, the result being the intuition of things. B. Object of perception. (1) *Relation of perception to reality.* Is the object objectively real or is it reducible to a phenomenon of the subject? A distinction must be made here between primary and secondary attributes of things. The primary may all be reduced to *spacial* and *dynamic* qualities. The *spacial* embrace externality and solid dimension. There are two current theories of space-perception: *nativistic* and *empiristic.* The empiristic theory is that perception of space is derived from non-spacial data; Spencer supposing it to be derived from *time* data; and Bain, from data of muscular motion. Both

these fail; for to have space in the conclusion they are obliged to bring it, by jugglery if necessary, into the data. The nativistic theory holds good when limited to the original percepts with which our process of perception starts. The ultimate data must be spacial. The truth of nativism is that perception of extension must *begin with* data of extension. The truth of empirism is that there is an empirical process connected with our perception of space: we must combine and develop the data. We do not mean that there is no relativity about space. Size is relative to the perceiving organism. A mountain to a midget is a molehill to a man, and man is a midget compared with conceivable beings. Magnify man's intelligence to infinity and its perspective, *i. e.*, all space shrinks into a point. Everything is present to an infinite intelligence.

We assert the objective existence of space because it is irreducible.

The *dynamic* quality of things gives us experience of energies not our own. Its primary term is resistance which is irreducible, and therefore objectively real. The secondary attributes of things—colors, sounds, &c.—are reducible to one term: they are some modification of energy, and depend also on the perceiving intelligence. In our developed percept of a thing we combine the secondary with the primary properties. Thus the things of the external world are objectively real. The primary properties of things have real and also independent existence: the secondary properties, real existence, but dependent on an intelligence. All things however may be dependent on an infinite intelligence.

The Perception of Time. Our starting point, our unit of measurement is the specious present: the segment of duration which the mind can have before it at once, (3 seconds in adults). Suppose the present segment to contain A, B, C, D; the next segment B, C, D, E, &c., and thus we get the sense of flow of experience. These changes in the specious present probably give us our perception of time, the elements of which are thus duration and succession, neither being reducible to the other, but duration being the more primary. The specious present—the unit of measurement—probably enlarges by experience, and in dreams it is probably greatly reduced; thus a few minutes appear years. This may be due to the fact that in dreams we have little retrospect. Both these explanations apply to the relative time length in youth and old age, time passing much more rapidly in old age when the specious present is longer and the retrospect larger. Laws *of the development*

of time-perception. 1. Intensity: the more intense experience seems nearer. 2. Attention gives an experience a closer relation to ourselves. There are two theories of time-perception. 1. *Empiristic;* that it is deduced at the outset from non-time data—from changes which we note. 2. *Nativistic;* that it is man's nature to impose the time form and to locate events in duration and succession. The truth is that the original data are time data, though experience has a function in the developed percept. Time is irreducible, therefore objectively real.

The Kanto-Hegelian School tend to believe the Divine mind as out of space and time, but we think that unnecessary. Suppose 10,000 sec.=1 sec., or infinite time=a single point of time, and thus by infinitating our conception of the present future we solve the problem of the Divine mind.

The irreducible, independent elements of nature then are: (1) things external to us; (2) space and time; (3) dynamic quality of things. Nature is objectively real to us whether absolutely real or not. Our intelligence neeessitates development: on co-existences and sequences we found the law of causation; on the spacial properties the mathematical sciences are founded. In the beginning, at every stage, at the end, nature stands out as an objective reality. *Our belief* in the reality of nature is subjective. We wish to bring it into correspondence with the truth. *Reality feeling* is primordial —spontaneous self-commitment, and arises (1) from that stinging sensation which the mere presence of an object calls forth; (2) from the feeling of satisfaction of a felt want. *Unreality feeling* arises as the feeling of absence. The CRITERIA of belief in external reality are: (1) that *feeling of intensity* when the thing is present; (2) *uncontrollableness:* we must see a thing if it is now present; (3) *volitional control:* put yourself where you saw the thing before and you will see it again; (4) *resistance to muscular effort:* the ultimate criterion.

II. **Judgment** helps in our apprehension of nature by contributing the whole series of dynamic relations: substance, cause, interaction. Kant holds that judgment superinduces substance upon attributes, cause upon time relations, &c.: reading principles into nature in order to construct it, viz. (1) space and time; (2) categorical judgments; (3) dynamic relations. Kant stumbles upon a dualism here between the knowable and the real, the difficulty being in the nature of the solution. The germs of a theory of knowledge are always found in its theory of perception. Kant's

first two categories are those of *quantity* and *quality*. Now the former answers the question "how much?" the latter, "what degree?" and both are simply functions of the content of experience, and not superinduced *a priori* forms. Next, *dynamical judgments*: *substance*; we assert *substance* whenever there is persistence in energizing. The judgment of *causality* arises out of a synthesis of energy and succession; that of *interaction*, out of a synthesis of energy and co-existence in time and space. Kant lays down two CRITERIA of judgments of cognition: necessity and universality. We add self-evidence. Universality is the proximate criterion; self-evidence and necessity are the more ultimate criteria. Self-evidence is positive necessity; necessity is negative—the inconceivability of the opposite.

MODALITY is a property of all judgments: it is the nature of their assertativeness. Kant distinguishes between *actual*, *possible* and *necessary* judgments. To the primitive judgments or true universals belongs the mode of necessity; to empirical, derivative judgments belong the modes of possibility and actuality. Perception gives us the world in space and time; cognition is that apprehension of nature which we get from these deeper principles. Only with this concept of nature do we reach the true science.

THE PRINCIPLES OF SCIENCE. Nature is divisible into the two spheres: (1) *mathematical*, resting on space (geometry) and number (arithmetic), and their relations; (2) *physical* (molar, molecular), resting on energy and motion. Number is the abstract form of change—succession ∴ depends on time. Neither is motion an independent element in nature; it is compounded of terms of space, time and energy. The irreducible principles, the underlying axioms of mathematical science have their objective basis in the nature of space and time.

The AXIOMS OF PHYSICAL SCIENCE are axioms of energy: 1. The axiom of *permanence* is the basis on which science rests; nature persists: the sum total of energy is constant. 2. The axiom of *succession—causality*. The underlying principle of scientific procedure is the law of universal causation. The axiom of the uniformity of nature involves (1) the universality of causation, (2) the uniform action of causes. We thus recognize the objectivity of nature from the beginning, and are thus able to meet several historic views: Hume's sensational subjectivism, Kant's rational subjectivism, Comte's phenomenism (which denies the deeper dynamic view of nature), and Mill's realism.

III. **Reason**—rational construction with a view to finding something ultimate. The supreme categories of reason are (A) unity and (B) finality. A. *The category of unity* expresses itself in a postulate: "there is a unitary energy or power in nature which is the ultimate source of all its phenomena." (*a*) *The scientific* or *proximate* justification of the postulate is in the correlation of forces and the conservation of energy. If the posssibility of the destruction of energy were not excluded, science would have no justification. Conservation is a corollary of causation. Causation involves continuity of energy, and the disappearance of any portion of energy would make a breach of continuity, as a certain amount of causation would produce no effect. This is true, not of the world alone, but absolutely. The *ultimate scientific concept of nature* is that of a sum of convertible energies capable of neither increase nor diminution, yet containing no reason for their correlation. (*b*) The *philosophic* or *ultimate* justification of the postulate. The mind requires that nature be traced beyond this mere sum of energies to a unitary source. This requirement is an imperative for philosophy, the function of which is to satisfy the demands of reason. (1) The only possible explanation is in *a unitary source.* (2) As a unitary source can only explain this correlation by furnishing the rational ground of it, this rational ground can only be *design*: either immanental (causes working *in* nature), or transcendental (nature realizing some external plan.) (3) The category of unity thus leads us necessarily to that of *finality.* We are forced by the demands of reason to make the transition from the mechanical to the teleological explanation of nature.

B. *The category of finality and the teleological stage in the philosophy of nature.* In the mechanical explanation the parts explain the whole; in the teleological, the whole determines the parts: one is necessary as the complement of the other. Mechanicism explains the *modus*; teleology, the *rationale.*

Evolution when construed as a purely mechanical product, teleology being eliminated, leads to materialism and atheism. Evolution, which is simply coördination of events in order of time, may be construed in perfect harmony with the teleological explanation of the world and the theistic postulate. The bearing of Biological evolution on immanental teleology. Can type be accounted for? Biological evolution seems to assume the existence of a few primordial germs or norms out of which all organic life can be explained on mechanical principles. Now if this is true, the

necessity of a regulative principle is simply carried further back It would only show that immanental teleology is not an ultimate fact in nature; and ∴ we must go back to transcendental teleology, otherwise we have mindless force staring us in the face. Descartes was compelled to bring in God in order to bridge the chasm between man's powers and nature. Now while all things depend *ultimately* on God, it is not true that the connection between man and nature is *immediately* dependent on God's existence. Leibnitz laid down as the basis of objective knowledge the principle that an adequate reason for everything must be sought. Subjectively, it is simply the formulation of the demand that everything that happens shall be explained. Were this principle not true, man would lack the motive of knowledge. Objectively, it demands that everything shall be causally explained; only then do we reach real knowledge. The elements of an adequate causal explanation are (1) mechanical, (2) teleological. The transition to religious philosophy is found in the teleological explanation. The most conspicuous feature of nature is the coöperation of forces toward the production of rational results. Is this world plan merely a concomitant of the operation of mechanical causes? We are obliged to look deeper, and to connect it with an underlying cause, and thus we are brought face to face with the ultimate problem of all knowledge—the nature of the First Cause.

Religious Philosophy. Religious belief is not a branch of, but an aspect to be explained by, religious philosophy. It is primarily a product of human spontaneity and not of reflection. Doubt here as in other spheres is the result of reflection, and generally leads to more adequate knowledge. Philosophy cannot discredit religious phenomena; it must of course determine their genuineness. Religion has been a force in the world; its phenomena are effects, and Science can trace these to their (secondary) causes. The *metaphysic* of religion inquires into the ultimate nature and ground of religion both as a belief and as an explanation of the world. The central topic here is *the* Idea of God, which which has a two-fold relation: (1) *subjective;* how did it get into the human consciousness? how develop? (2) *objective;* what grounds for asserting God's objective existence? his relation to the world? how does his existence enable us to arrive at a satisfactory and ultimate explanation of the world? Our Idea of God (1) is that of an intelligent creator of the world; (2) the author of the world plan; (3) a personal being; (4) a being who controls both

the natural and the moral order of the world. THE DIVINE ATTRIBUTES. A. Of *relation:* (1) first cause of the world; (2) the rationale of the world; (3) the unconditioned, self-existent. B. Of *personality:* (1) self-conscious intelligence; (2) will; (3) ethical qualities (goodness, justice, &c.); (4) an element of feeling ("God is love"). C. Of *degree:* (1) *infinity:* (*a*) applied to him irrespective of his attributes, (*b*) applied to himself. Much confusion has arisen over God's infiniteness. It is absurd to apply infinity of magnitude to him for this does not apply to personality; rather, infinity of energy. Applying the idea of infinity to God's conscious intelligence we get omniscience; to his power, omipotence; to his attributes, perfection; (2) *absoluteness.* Hamilton says that this contradicts infiniteness. Now "absolute" has little significance outside of the divine power and will; it means here "unconditioned," ultimate. Were God entirely unintelligible, we could ascribe no attributes to him—personality, first cause, &c. Were he entirely intelligible he would not be God. In the idea of our own personality we obtain a type of the divine. We simply infinitate that known type which still remains intelligible. Just so we infinitate will, ethical character, &c., and thus we arrive at our concept of God as an infinite, absolute personality.

RELATION OF THE IDEA OF GOD TO THE HUMAN CONSCIOUSNESS. A. HISTORICAL. 1. *Intuitional theory:* that man has an intuitive knowledge of God. The fact that man is universally a religious being favors this theory. 2. *Evolutionary theory:* that the idea of God has been gradually evolved from ascertainable data. Spencer's extreme theory is that primitive man has no germs of the idea of God; he dreams of his ancestor and thus is led to distinguish ghost from body; thus arises fetichism—polytheism—monotheism. Müller says there has been a degeneration from a purer religious faith. The tendency is to regard the divine idea as immanental, the ghost-theory contributing to its development. 3. *Traditional theory:* that the idea of God was first given by revelation. Now revelation, while it may be necessary that man may arrive at a true conception of the divine being, rather presupposes that man is by nature a religious being. 4. *Anthropological theory:* that the idea of God is a natural product of the human consciousness, and has stages of development corresponding with the stages of man's culture. Revelation among other forces contributes to its development.

This is the most satisfactory historical theory.

B. Logical. 1. *Descartes:* the idea of the finite and the imperfect implies that of the infinite and the perfect. 2. *Kant:* the *idea* of God is *necessarily* in the human consciousness; but that idea does not represent objective reality. 3. *Spencer:* it is the underlying postulate of all knowledge that an absolute First Cause exists. 4. *Positivism* is the only school that repudiates the idea of God.

Investigation of the Relation. The teleological principle is simply a demand for a deeper than the mechanical explanation. The guiding principle in our reasoning as to a teleological cause is *analogy*. Only intelligence can give the rationale of my actions. Nature cannot be explained unless we can give the rationale of its unification, and this we find only in a teleological cause. Synthesizing the historical and the logical threads, all the forces of man's nature and all the logical processes of his reason seem to be involved in leading him up to the concept of God as the necessary First Cause of the world. There are two theories as to the relation of the idea of God to God's existence: A. *Subjective:* that the idea is a subjective phenomenon and cannot be taken as indicating objective reality; (*a*) *atheistic naturalism*—that the idea and the instinct are spurious and illusory; (*b*) *ethical idealism*—that they are genuine. B. *Objective:* that God objectively exists, the idea of God being valid. In this sphere *demonstration* is out of the question; *rational certitude* here, as in Inductive Logic, is all we hope for.

We shall consider God's existence from three points of view: historical, critical, constructive. Historical. (1) *Teleological.* Anaxagoras was the first to hold to the necessity of a teleological intelligence. Socrates developed this in detail, pointing out adaptations of organisms to environment, &c. Plato develops the theistic view in connection with his ideal theory: everything is for the good; the divine intelligence is transcendent. Aristotle pointed out the four aspects of cause: material, efficient, formal, final. From this standpoint he founds the cosmological proof by asserting the necessity of God as the prius of motion. From the standpoint of formal and final cause he asserts that God is the author of the end which the world is going on to realize. The defect was in confining God to the beginning of the process. The teleological proof in modern Philosophy, while prominent, has too often lost itself in details, *e. g.*, in Paley's Natural Theology. Leibnitz, in his principle of sufficient reason and pre-established harmony, plants himself on teleology. God at the beginning so ordered

things that harmony should result, yet divine energy does not accompany the process. Leibnitz uses the analogy of two clocks wound up and set so as to run exactly together. Lotze holds (1) the necessity of a teleological explanation; (2) the correlation of mechanism and teleology, each occupying different spheres, and so being unlimited. He, however, tends towards pantheism in holding to immanental intelligence. Now we must make a synthesis of the immanental and the transcendental functions of the divine intelligence if we would have an adequate view.

(2) *Cosmological.* Aristotle holds the necessity of a First Cause of motion and development; and believed this to be intelligent. Adam Clarke puts it thus: "Something is, ∴ something has been from all eternity." Locke says: "If any being exists, some necessary being exists; but I exist, ∴ some necessary being exists." Leibnitz formulates this in his argument *a contingentia mundi.* The argument reaches its complete syllogistic form in Wolff.

(3) *Ontological.* Anselm was the first to develop this. The universal is the absolute reality; the idea of God is the supreme universal ∴ God is the absolutely real. The idea of the most perfect involves the existence of the most perfect; the idea of the greatest possible being, the objective existence of that being; otherwise we could conceive a greater being, but the idea of God is of the greatest possible being. Descartes unfolds the ontological proof in three aspects: (1) *analytically;* God exists because existence is necessarily implied as an attribute of God in our idea of him; (2) *synthetically;* the idea of an infinite and perfect being can only be produced in our consciousness by an infinite and perfect cause—God; (3) *anthropologically;* man is conscious of his own existence —but as finite and imperfect, and this idea presupposes the idea of the infinite and the perfect, and this presupposes their existence as adequate cause of the idea. These three great proofs have been developed as parts of larger systems; they have rarely been synthesized.

Modern Criticism *of these proofs.* I. Hume, in his "Dialogues on Natural Religion," considers, not God's existence, but its evidence. He lumps together the *a priori* proofs (cosmological and ontological) and tries to refute them by a single blow. "Nothing is demonstrable unless the contrary implies a contradiction; nothing distinctly conceivable implies a contradiction; whatever we can conceive as existing we can also conceive as not existing;

there is no being whose non-existence implies a contradiction, ∴ no being whose existence can be demonstrated, ∴ existence cannot be demonstrated." If causation is a true objective principle, then this logic is fallacious; for if we know that some being exists we can assert the necessity of some other being. Hume saw this and tried to reduce causality to association of ideas. Taking up the *a posteriori* proof, Hume admits some force in the argument from design, but opposes it (1) as making causality objective; (2) from the limits of analogy: we have to go beyond experience, as we have no experience of world building: supposing the analogy valid however, all it would prove is the existence of a finite cause adequate to produce the world which is finite: then why not take the analogy of a living developing organism rather than that of a machine? II. Kant: If God exists he is outside of the knowable world constituted by our principles (causality, &c.) The idea of God, Kant says, is that of a most real being. Kant answers the (1) *ontological* proof by the universal proposition that from the idea of a thing the existence of the thing cannot be deduced; the (2) *cosmological*, by saying that the use of this argument involves illegitimate use of causation. But granting its legitimacy, it only proves the necessity of a First Cause without determinating its character, and the ontological argument has to be brought in; but *it* has been shown fallacious. For the (3) *physico-theological* proof, Kant has great respect as it is an *a posteriori* argument founded on data open to human intelligence; but he says that it only proves an architect, not a creator; and only a finite cause, the effect being only finite. So we have to recur to the (1) and (2) proofs which have been shown fallacious. The problem of God's existence Kant cannot from a theoretical standpoint solve. Kant's moral theology supplements his physical theology by bringing in moral data, yet it is limited by the physical theology, for moral considerations do not extend the limits of *knowledge*. *You must act and think as though there were a God, but you must not think there is a God*, is Kant's position in a nutshell, and suggests its own weakness.

III. Evolution *criticism*. The idea of evolution is this; that the present forms of being are the outcome of a gradual process explainable by natural mechanical laws. This may be applied to three great departments of nature: biology, geology, cosmology. How does the concept of evolution bear on God's existence? It seems to completely turn the tables on the design argument. The eye, *e. g.*, has not been designed to see the light, but the operation of

light on the organism produced the eye, &c. It seems to reduce everything to mechanism and thus to leave no place for teleology. Hegel regards it as absolutely inimical to the theistic view; Spencer connects it with the agnostic postulate. *However*, after all, evolution replaces more teleology than it displaces. It compels us to view the question from a different standpoint. (1) There is no necessary antagonism between mechanism and teleology; *e. g.*, in architecture. (2) The mechanical explanation of design does not explain the rationale; we are simply thrown further back—led to a profounder question. Adaptation can only be settled by connecting teleology with mechanism. The fundamental difficulty with Kant in all his work is in his *formal idealism*. The ultimate ground of the unity of consciousness, he says, is the notion of logical unity; and this notion involves the *notion* of a self, which does not justify the assumption of the *existence* of a real self. Then of course the object cannot be more real to the subject than the subject is to itself. Cause &c. are only subjectively valid. Man is imprisoned in his own forms of thought, and can know nothing about things themselves.

Against this we bring the cumulative force of this entire course. Our position is that man knows *himself* as a real being, and thus a real knowledge of the *world* is possible. The world confronts man as a real object, and man can penetrate some, at least, of its mysteries Man's principles are principles of knowledge given him to enable him to grasp the real; and if you take away their real objective significance you destroy them altogether. In investigating truth we must first bring ourselves into normal relations with truth—face to face. The various "proofs" of God's existence have been treated as *disjecta membra*, whereas they are simply different aspects of one great argument. If God exists, that fact is the most comprehensive, stupendous fact in the universe. The *data* on which man's conviction as to God's existence rests are synthetic, embracing elements from the logical, moral, and aesthetic nature of man. The three foci into which we may bring all logical proofs are the (1) ontological, (2) cosmological and (3) teleological proofs. As to (1) no formal proof is possible, nor yet desirable or necessary. We want a real and not a formal demonstration. Man inevitably develops a religious consciousness, and the divine idea cannot be empirically derived. Spencer asserts that the logical relation between the perfect and the imperfect, the finite and the infinite, &c., is an absolute reality. This reasoning has conquered the greatest intellects of the world

and should . . have great force. The outcome of (1) is the *postulate* of God's existence. (2) Has been developed under the philosophy of nature, and is embodied in that metaphysical demand for a necessary being is the first cause of a phenomenal world; (2) does not *prove* God's existence. Kant was mistaken here. (3) Teleology includes the whole conception of the unity of the first cause. In so far as it is separate from design it is embraced in cosmology. The three different stages of theories as to the character of the world are: A. PRE-DARWINIAN: adaptations of organisms to environment and of organs to functions; the reasoning resting on (1) fixity of species; (2) special creation. B. DARWINIAN: Variations of species admitted—the result of natural laws: the original variations in type are accidental; but being given, their development into species is the result of natural selection and the survival of the fittest. C. POST-DARWINIAN: Variations are not accidental; evolution and heredity are the two terms in selection.

All phenomena have been theoretically generalized under the evolution hypothesis. However the only sphere in which it has been fairly established is Biology; it has to a great extent been verified in Geology and Cosmology too. Suppose it could be generalized so as to include all the phenomena of the cosmos, what then? A panic similar to that caused by the introduction of the law of gravitation has arisen among theists, but is subsiding. It is only necessary for us to see that the mechanical and the teleological explanations do not rest on the same plane. They are not mutually exclusive. Suppose the details of design &c. are explained by natural laws, the most tremendous fact in the universe remains to be explained, and that is the universe itself. The teleological argument is concerned primarily with the unity of the universe; secondarily, with the details of the world system. I. IS AN INTELLIGENT AUTHOR OF THE WORLD DEMANDED? Three hypotheses: A. *Blind force.* *But*, the more we know about the world—its complexity—its coördination—its order, the harder it is to believe in blind force. B. *Chance coincidence.* On the theory of probability there ought to be a pretty even division between the spheres of chaos and of order. *But*, order and adaptation are the general rule; chaos and monstrosity are the exception. The dice is loaded; chance coincidence fails. C. *Intelligent agency* is the only theory that explains the orderly character of the world and is supported by analogy. II. IS A CONSCIOUS AUTHOR OF THE WORLD REQUIRED? —Three hypotheses: A. *Instinctive Intelligence*—Schopenhauer's

view—inworking energy producing the world system. *But*, this is no better than the mere blind force theory. B. *Unconscious Intelligence*, which manifests itself in various stages of the world's development; an idea, however, must be postulated as implicit in this intelligence—Von Hartmann's view. *But, consciousness* (in the "idea") is thus read into unconscious intelligence. C. *Conscious Intelligence*. This only is self-explanatory. Profound philosophers are giving up A and B, and are either holding to the necessity of a conscious First Cause or are taking refuge in agnosticism.

By making a LOGICAL SYNTHESIS of the ontological, cosmological and teleological considerations we (1) get our problem; (2) are enabled to correlate the various lines of solution. Ontological considerations give us the subjective postulate of God's existence; cosmological and teleological considerations give us a view of the world consistent with the truth of that postulate and inconsistent with its falsehood or with any other postulate, thus giving to the postulate the strongest objective confirmation.

Two contemporary views are (I) IDEALISTIC: that Kant has established the fact that the object of the religious consciousness is only an idea; that God, in so far as he can be objectified is simply the moral order of the world. (II) AGNOSTIC: this admits the possibility or asserts the necessity of objective existence, but fixes an *a priori* limit to our powers of cognition. This however creates more difficulties than it settles. The more normal view is to regard all questions as open to investigation. Only *a posteriori* agnosticism fits in with an objective theory of knowledge. There are limits (as in higher mathematics), but no *a priori* limits.

EXTRA-LOGICAL CONSIDERATIONS possess evidential value, yet do not *prove*. They may be classed under **Worth** or **Value.** A. INTRINSIC WORTH. God must be a being of supreme worth . . . a moral and spiritual being. B. RELATIVE WORTH—value for the *human* spirit. That is of the highest value (1) *which meets our highest aspirations*—and these are for the infinite; (2) *which satisfies our profoundest needs*: life is a struggle; and in its great crises, when the foundations seem to be crumbling away, man needs (*a*) *strength*, (*b*) *solace*, (*c*) *a perennial source of motivity*; and the only unfailing source of these is divine.

THE SCALE OF VALUES. A. *Logical:* the intellectual value of a thing. B. *Ethical:* a synthesis of logical and moral. C. *Spiritual:* supreme; combining ethical and emotional. Corresponding to

these values is a Scale of World Orders. A. *Logical:* the world viewed from the standpoint of scientific intelligence. B. *Moral:* the world as it presents itself to the moral intelligence of man. C. *Religious:* the world as it presents itself to our spiritual intelligence—God being the head of the system. In connection with this we have also a Scale of Objective Certitude. A. *Logical:* this is intellectually the most certain; its God, however, is a logical abstraction. B. *Moral:* in humanity we find the sphere for the operation of moral order, which man generalizes and connects with the First Cause of the world. C. *Religious:* spiritual order is for spiritual existence, ∴ has its basis in humanity. Man conceives God as a spiritual personality primarily because he is a spiritual personality himself. It is the highest man is capable of—but only relative after all. To reach a conception of the true, the living God we must combine all lines of evidence. The richness of the concept all lies beyond the sphere of logical demonstration. It is this Being, infinitely endowed with intellectual, moral and spiritual attributes, who is the adequate object of the yearning of man's nature *as a whole.*